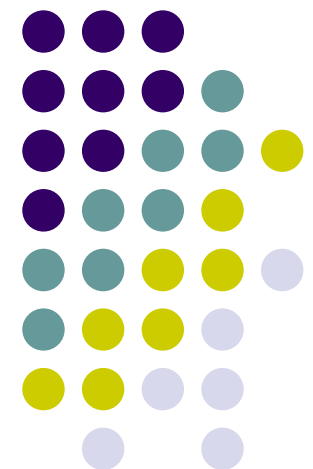
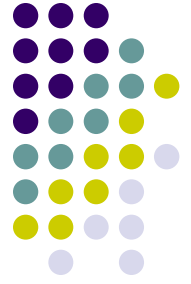


Avian Influenza and Virginia's Wildlife

Julia Murphy, DVM, MS,
DACVPM

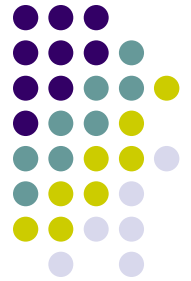




Influenza virus

- **Three types: A, B, C**
- **Wild birds are natural reservoirs for type A**
 - **Most often found in migratory waterfowl and shorebirds**

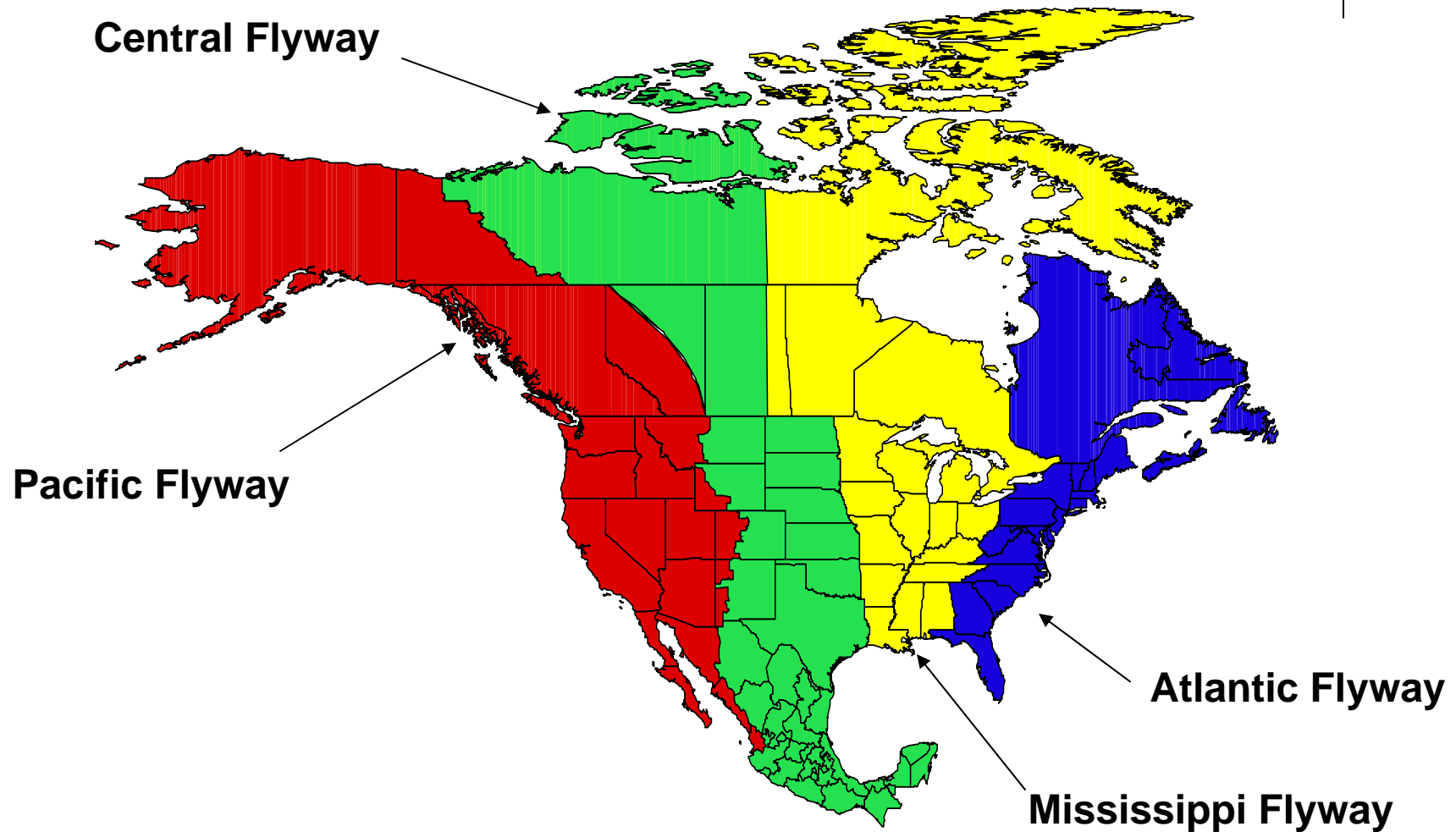


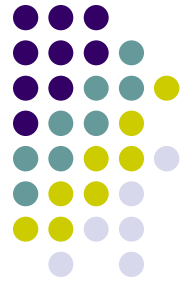


Influenza virus-Wild birds

- **Type A has many different subtypes**
 - Identified using H and N
 - Infection is usually not apparent
- **H5N1 subtype**
 - Contagious among birds
 - Can cause significant mortality among birds

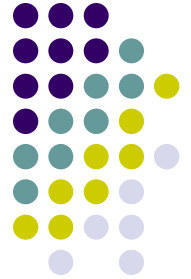
Migratory Bird Flyways-US





Migratory Bird Concerns

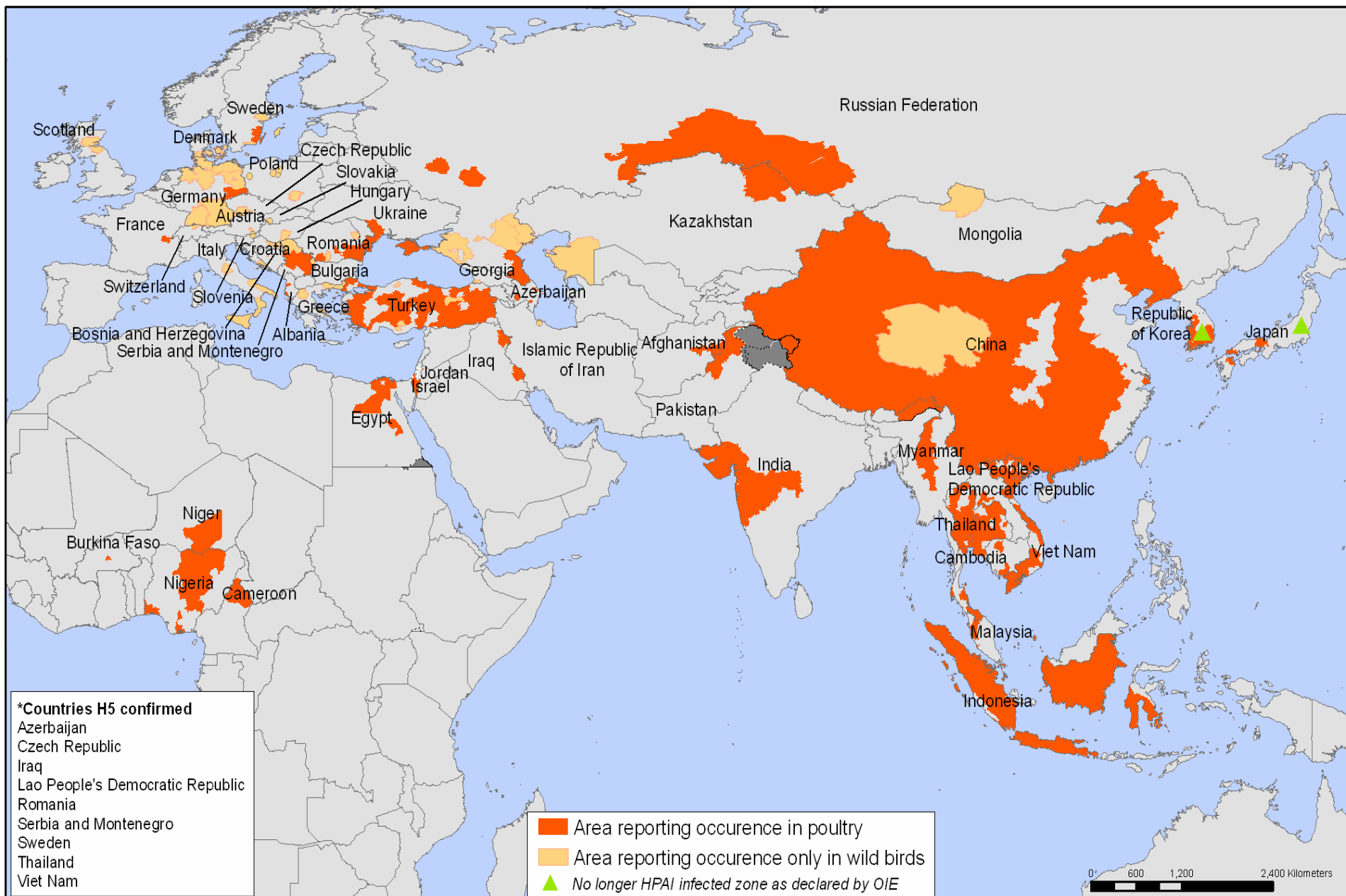
- **How much of a role do these birds play in the spread of the virus?**
- **What are the health implications for these birds?**
- **How much of a public health concern is contact with these birds?**
- **What assessment/surveillance is being performed?**

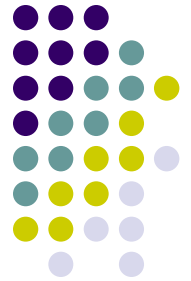


Migratory Bird Role

“No evidence to date indicates that wild birds are the source of the present outbreaks of highly pathogenic H5N1 avian influenza. Wild birds should not be culled.” WHO 3/2004.

“The instances in which highly pathogenic avian influenza viruses have been detected in migratory birds (is) rare, and the role of these birds in the spread of highly pathogenic avian influenza remains poorly understood.” WHO Geographical Spread of H5N1 Update #28).





Bird Health Implications

- **This strain is unusual in that it has resulted in high mortality rates in wild birds:**
 - **2002: Waterfowl parks in Hong Kong (Ellis *et al*, Avian Pathology, 2004)**
 - **Species affected included geese, ducks, swans, black headed gull and others**
 - **2005: Over 1000 migratory birds mostly geese and gulls died in Qinghai Province of China (ProMED, June 2005)**



Public Health Concerns

- **No confirmed case of H5N1 passing from a wild bird to a human**
- **Direct contact with infected poultry is thought to be the greatest risk**
- **Aerosol of the virus as a risk factor is thought to be negligible**
 - **Flu virus from one yard will not be carried on the wind to a neighbor**



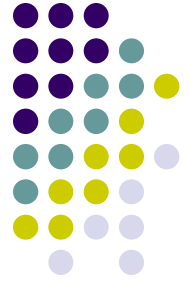
Assessment and Surveillance



- **Virginia assessed to be low to moderate risk**
- **Strategies for surveillance include:**
 - **Investigation of morbidity and mortality of waterfowl and shorebirds**
 - **Surveillance of live wild birds**
 - **Hunter-killed surveillance**

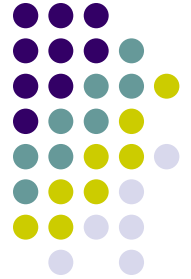


How You Can Protect Yourself



- **Observe wildlife from a distance**
- **Avoid touching wildlife**
- **If there is contact with wildlife, do not rub eyes, eat, drink, or smoke**
- **Wash your hands**
- **Do not pick up diseased or dead wildlife**

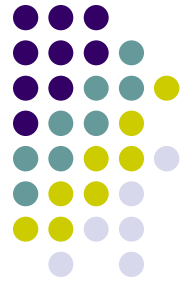




How you can help

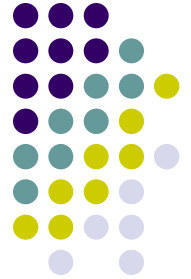
- **Accurately document location**
- **Call DGIF**
 - 1-804-367-1258 (central office)
 - 1-540-899-4169 (Fredericksburg office)
- **DGIF will investigate the report**
- **May not necessarily perform a field visit or submit samples**





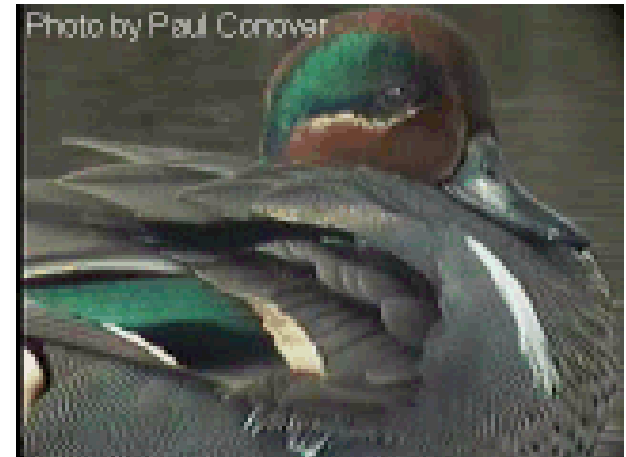
Other efforts

- **Virginia Department of Agriculture and Consumer Services**
 - Test for AI on a regular basis
 - Surveillance in commercial poultry
- **Avian Influenza Task Force**
 - Multiagency effort: VDH, DGIF, USDA, VDACS, DCLS, DOI



Resources

- www.dgif.virginia.gov
- www.vdh.virginia.gov
- www.vdacs.virginia.gov
- www.cdc.gov
- www.who.int
- www.pandemicflu.gov



Thank you

